Function Description

Push-To-Talk (PTT) in Ascom VoWiFi System

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1 Introduction

In addition to ordinary telephony the handset supports a Push-To-Talk (PTT) function. The PTT function can be described as a group/conference call.

This document gives a brief overview of PTT sessions, describes needed settings and where to find more detailed information. The document is intended for sales personnel and people involved in planning, installation and configuration.

1.1 Prerequisites

- Conference bridge

  PTT requires a phone number to some type of conference bridge (a specialized type of equipment that links telephone lines).
- Configured groups

  Configured groups are also needed in the system. Groups can be configured in any Unite module that handle groups. The group is defined either via the Interface Group menu in the IMS2 or via Group ID in ESS/Unite CM.

1.2 Abbreviations and Glossary

AMS	Alarm Management Server: a Unite module that enables advanced event handling.
ESS	Enhanced System Service: Unite modules that handle centralised number planning, remote connection, system supervision, fault handling, group handling, message routing, centralised logging, activity logging, and user access administration.
IMS2	Integrated Wireless Messaging and Services: Unite module that enables wireless services to and from the VoWiFi handsets in a WLAN system. It also includes the Device Manager.
PTT	Push-To-Talk
Unite CM	Unite Connectivity Manager: a Unite module that enables messaging and alarm handling in a WLAN system. It also includes the Device Manager.
UNS	Unite Name Server: a Unite module component that holds the Unite number plan and Unite destinations.

2 System Overview

Note: All devices able to initiate a session must know the number to the conference bridge.

2.1 Push-To-Talk (PTT) Group Call

A PTT session can be triggered from the system, by an alarm, or by a user that sends an invitation to a PTT group from the handset. If a PTT session is to be triggered by an alarm, an AMS or XGate is required in the system. The AMS or XGate will then send the message.

PTT sessions are by default configured to open in loudspeaking mode but can be configured otherwise. The message sent to the PTT group members can include the possibility to accept or decline the PTT session, or a demand that it is to be accepted automatically.

The calls are made in half-duplex communication, which means that while one user is talking, the other users are listening. To be heard, a user has to open the microphone by pressing and holding the mutebutton button. Only one user can be heard at a time.

Accepting a PTT session will disconnect any ongoing call and cancel an ongoing PTT session. If it is configured to be accepted automatically and is received during an ongoing call or PTT session, a warning will sound for approximately 10 seconds. During that time it is possible for the user to decline the session. If declining the PTT session, it is possible to join later by selecting the PTT message stored in the message list. Leaving the PTT session is done by simply pressing the on-hook key.

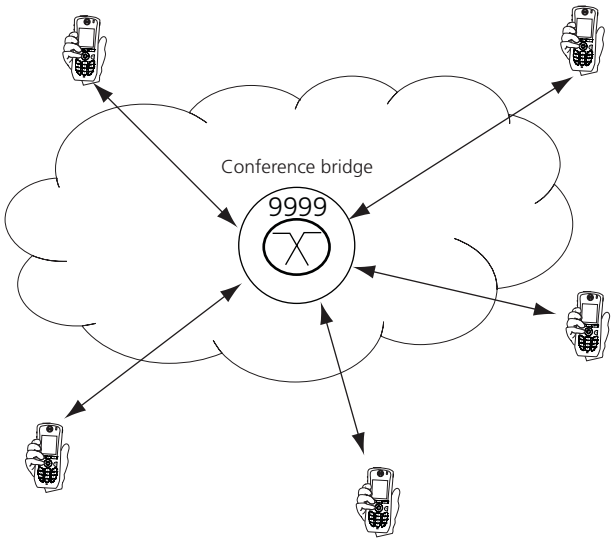

Figure 1. PTT group call

2.2 PTT Session Initiated by Handset

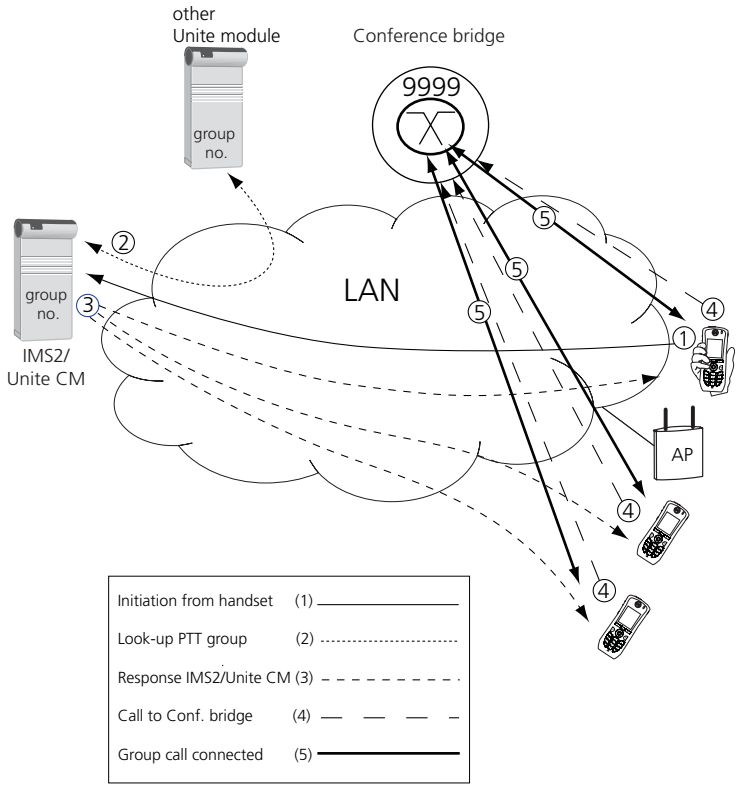

Figure 2. PTT session initiated by handset

When the handset initiates a PTT session, it sends a message to the IMS2/Unite CM with the phone number (9999 in figure 2) to the conference bridge. When the IMS2/Unite CM has found the PTT group, it forwards the message to all members in the group, including the initiator if the initiator is a member.

When the PTT session is accepted, either manually or automatically, the handset is connected to the number that handles the conference/group calls, and all handsets in the PTT group are connected.

2.3 PTT Session Initiated by AMS/XGate

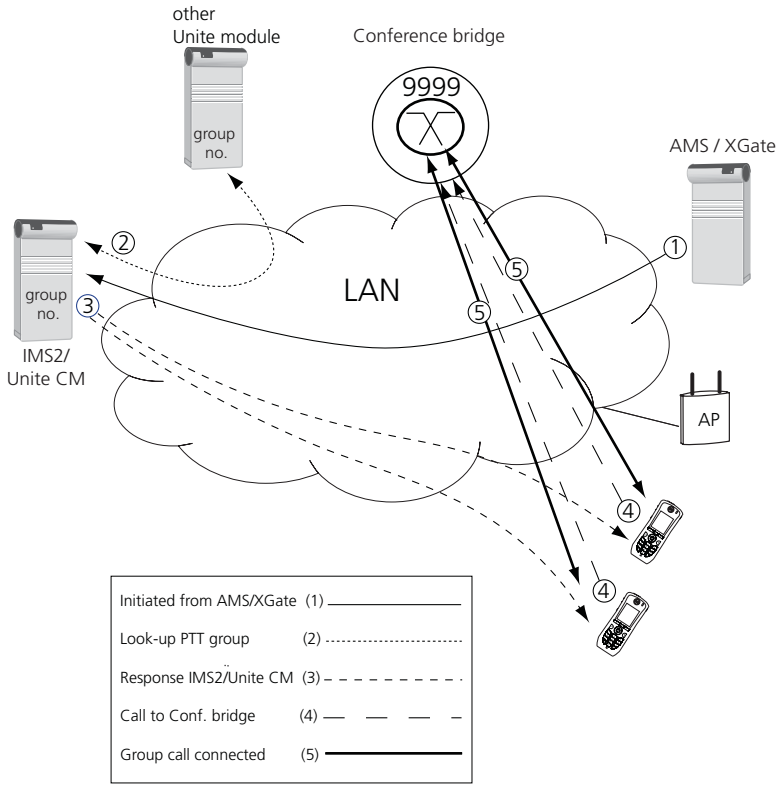

Figure 3. PTT session initiated by an alarm

When the AMS or XGate initiates a PTT session, it sends a CallSetup message to the IMS2/ Unite CM with the phone number (9999) to the conference bridge. When the IMS2/ Unite CM has found the PTT group, it forwards the message to all members in the group.

When the PTT session is accepted, either manually or automatically, the handset is connected to the number that handles the conference/group calls, and all handsets in the PTT group are connected.

3 PTT Settings in the Handset

All settings required in the handset are described in the Configuration Manual i62 VoWiFi Handset, TD 92675GB, and the Configuration Manual i75 VoWiFi Handset, TD 92431GB.

4 Operation

The handset operation is described in the User Manual i62 VoWiFi Handset, TD 92599GB, and the User Manual i75 VoWiFi Handset, TD 92319GB.

5 PTT Settings in AMS/XGate (if used)

AMS and XGate can be used to initiate a PTT session in the VoWiFi system. It is the Event Handler in AMS/XGate that is used for this action.

Refer to applicable Installation and Operation Manual, listed in 6 Related Documents on page 7.

5.1 Preconditions

- EventHandler External interface configured for Call Setup to deliver the message to IMS2/Unite CM.
- A trigger is set up for the event.
- An action is set up for the event.

Note: The block used in EventHandler when setting up a PTT session is Call Setup.

5.2 Settings

Delivery

The CallSetup message can either be sent to the default external interface (with UNS), or directly to a specified Unite address (IMS2/Unite CM).

If the CallSetup message is sent to the default interface, the UNS is used to get information about the destination. The IMS2/Unite CM address must then be specified in the UNS.

The following Assignments are available:

Note: The answering behaviour of the handset set in AMS/XGate overrides the settings in the handset.

Answer mode

Value	*Action*
0	Manual The user must press a key to answer
1	Automatic answer

Beep

Value: **0**–**9**

Same as for messages.

Call no

Here the number to the conference bridge must be specified.

This is the number the handset calls when off-hook is pressed, or calls automatically if Answer mode is set to automatic.

Call type

Note: Must be set to "**0**" though it is not used in the i62 or i75 VoWiFi handset.

Microphone mode

Value	*Action*
0	PTT
1	Not used in the i62 or i75 VoWiFi handset

Speaker mode

Value	*Action*
0	Not used in the i62 or i75 VoWiFi handset
1	Normal
2	Loud speaker on

Speech monitoring

Not used in the i62 or i75 VoWiFi handset.

Tag

Not used in the i62 or i75 VoWiFi handset.

Text

Enter text to be displayed on the handset when the CallSetup message is received.

0–1000 characters of text can be entered.

6 Related Documents

System Description Ascom VoWiFi System	TD 92313GB
Function Description Ascom VoWiFi System	TD 92314GB
Considerations for Ascom VoWiFi System Planning	TD 92408GB
Configuration Manual i62 VoWiFi Handset	TD 92675GB
User Manual i62 VoWiFi Handset	TD 92599GB
Quick Reference Guide i62 VoWiFi Handset	TD 92597GB
Configuration Manual i75 VoWiFi Handset	TD 92431GB
User Manual i75 VoWiFi Handset	TD 92319GB
Quick Reference Guide i75 VoWiFi Handset	TD 92320GB
Installation and Operation Manual IMS2	TD 92586GB
Installation and Operation Manual Unite CM	TD 92735GB
Installation and Operation Manual Alarm Management Server (AMS)	TD 92047GB
Installation and Operation Manual XGate	TD 92338GB

Document History

For details in the latest version, see change bars in the document.

Version	Date	Description
A	19 October 2007	First released version.
B	1 December 2008	Figure 3. updated
C	13 December 2010	• Replaced IMS/IP-WiFi with IMS2 throughout. • Added Unite CM throughout. • Added i62 VoWiFi handset throughout. • Added chapter 1.2 Abbreviations and Glossary on page 1. • Clarified call functionality in chapter 2.1 Push-To-Talk (PTT) Group Call on page 2.